

A NEW SPECIES OF LEPTOGLOSSUS: A NEW BLISSUS AND VARIETIES.

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Leptoglossus brevirostis n. sp. *Leptoglossus* sp.?—Barber, Bull. Mus. Brooklyn Inst. of Arts and Sci., 266, 1906. Color fusco-rufous or dark ferrugineous-brown, with the head, two suboval cicatrices anteriorly on the pronotum, humeral area, connexivum, two stripes on the basal segment of the antennæ, apical part of the femoræ piceous. The three apical segments of the antennæ, a stripe along the outer and inner surface of the basal segment, three longitudinal stripes on the head, the lateral margins of the pronotum anteriorly and between the cicatrices, a transverse wavy line on the middle of the corium, apex of scutellum, incisures of the connexivum, femoræ above towards base, tibiæ for the most part, and a few spots on the darker tibial expansion, pale or ochraceous. Head and pronotum anteriorly with incumbent silver-white pubescence and a sparse covering of dark pilose hairs.

The tylus forming a somewhat blunt, rounded, elevated lamina, slightly exceeding the jugæ. The second segment of antennæ one third longer than the third, fourth segment long, a little longer than the second. Rostrum short, just reaching past middle coxæ, second segment subequal to basal and about two and one half as long as third which is one third shorter than blackened apical one. The pronotal humeral angles prominently expanded and elevated into broad acuminate acute angles, margin posterior, to which is often finely dentate or serrate; the anterior declivous face of the posterior lobe of the pronotum almost vertical, the surface closely and coarsely punctate and provided with an obscure longitudinal median carina posteriorly. Veins of the corium wine-red. The transverse yellowish fascia wavy, following the line of the transverse veins. Membrane somewhat bronzy. Beneath dirty testaceous, maculate with fuscous spots. The legs somewhat densely pilose. Posterior femora about reaching apex of abdomen, provided outwardly with two rows of widely separated, short, black, backwardly pointing teeth and inwardly with two rows of longer, posteriorly directed spines, five or six in the lower row and three in the upper series increasing gradually in size outwardly. The expansion of the posterior tibia wide, bronzy purple-brown, with a few pale spots, occupying more than one half of the length but not two thirds of the tibia, tridentate in both sexes, the inner expansion less than one third the diameter of the outer expansion and one fourth shorter, calloused all along the margin, rather abruptly terminating and apically furnished with one to several teeth; simple apical part of the tibia armed inwardly with several scattered, short, blunt teeth.

Length ♂ 12 mm., ♀ 14 mm.; width of pronotum ♀ 5 mm.

Described from one ♂ and seven ♀'s collected by me in the Huachuca Mts., Arizona, August, 1905; one ♀ St. Thomas, Brownsville, Tex., collected by Mr. Charles Schaeffer; and one ♂ from Sonora Co., California, in the collection of Mr. J. R. de la Torre-Bueno.

This species falls in the section "gg" of Stal's arrangement of the genus in Enum. Hemipt., I, 164, because of the extreme shortness of the rostrum, which will at once separate this from any other known United States form. The steep anterior declivous face of the posterior lobe of the pronotum and the extremely wide and short tibial expansion will further differentiate the species. Mr. Heidemann and myself formerly referred this to *Leptoglossus stigma* Hbst. var. *minor* Dall.

Thyreocoris rastratus Stal. Mr. E. P. Van Duzee has placed this in his recent catalogue upon the record which I transmitted to him. It will therefore be necessary to publish the facts concerning this new addition to our fauna. A single ♀ from Brownsville, Texas, collected by Mr. O. Dietz in June, 1901, is in my collection. It is very unlike any other form from the United States. It is very short and broad, dull black, finely rastrate on the pronotum and scutellum laterally. The head is obtusely triangular and except at base very closely and evenly punctate all over. Originally described by Stal from Brazil and later, Stett. Ent. Zeit., XXIII, 1862, p. 94, he referred to this species, with doubt, a Mexican specimen received from Signoret. Distant, Biol. Cent. Amer., 1880, records this species from British Honduras and Guatemala, so without doubt Stal was correct in his diagnosis of the Signoret specimen.

Blissus occiduus n. sp. Brachypterous form closely related to the European brachypterous *B. doriae* Ferr., which it resembles in size, color and general appearance.

Color black, sometimes verging into dark castaneous on the head, pronotum, connexivum and venter. Apex of tylus, first three segments of the antennæ and base of the fourth, rostrum, and legs ochraceous. Membranous part of hemelytra in macropterous forms whitish with the veins pale stramineous and a piceous spot before apex. Membrane concolorous with the membranous part of the corium. Head and pronotum covered with short white tomentose hairs. Corium more sparsely pilose. Antennæ and legs finely pilose. Dorsal part of abdomen and beneath clothed with fine incumbent silvery hairs.

Head short and broad, much deflexed before. Eyes not so prominent as in *B. leucopterus* Say. Antennæ with the second segment one third longer than third, fourth segment about one third longer than second, pale at base and very lightly incrassate. Lightly incrassate fore femora unarmed.

Tip of rostrum reaching to between the hind coxæ, first segment passing a little the base of the head, a little shorter than second, which is almost subequal to the third.

Macropterous female: Pronotum plainly transverse, lateral margins gently rounding anteriorly from the humeral angles. Scutellum very transverse. Apex of the corium reaching to the posterior margin of third abdominal segment. Membrane damaged in the single macropterous specimen, but apparently does not reach apex of abdomen.

Brachypterous male and female: Pronotum strongly transverse, lateral margins posteriorly parallel to each other, a little anterior to the middle strongly and somewhat abruptly rounded to the anterior margin. Hemelytra extremely short, not twice the length of the scutellum, apical angle very obtuse, scarcely reaching beyond posterior margin of the metasternum, apical margin lightly oblique, forming almost a continuous line with the opposite margin of the scutellum; the veins rather broadly embrowned with the reduced membranous areas obscurely pale. The membrane pale, very much aborted, scarcely as long as the width of the clavus, apical margin gently rounded, reaching the basal margin of the second abdominal segment. Exposed dorsum finely transversely rugose with fine incumbent silvery pubescence. Venter finely punctate. Sometimes the acetabulæ, posterior margin of the metasternum and the venter paler.

Length 3 mm.

Described from one macropt. ♀, Ft. Collins, Col., June 12, 1902 (Type), one brachypt. ♂, Ft. Collins, Col., May 6, 1898, and one brachypt. ♀, Ft. Collins, Col., June 12, 1902, all collected by Dr. E. D. Ball; two brachypt. ♀s collected by G. P. Cockerell at Geronimo, N. Mex., March 9, 1902 (U. S. N. M.).

This species is smaller than the typical western form of *B. leucopterus* Say, the head is more deflexed, the eyes less projecting, the antennæ much shorter and differently colored, the terminal segment being relatively shorter, the disk of the pronotum flatter, the corium as well as the membrane is much more abbreviated in the brachypterous form than I have ever seen it in *B. leucopterus*. In this last respect it resembles *B. doriæ* Ferr. of Europe.

Blissus leucopterus Say was described from Virginia. Specimens from that locality resemble those from Nebraska, Kansas and neighboring western states; in the west only macropterous forms occur, according to Webster, 1898. Dr. E. D. Ball has a brachypterous female from Manitoba in his collection. Fitch, second Rept. Trans. N. Y. St. Agr. Soc., 1856, recognizes nine

mostly color varieties but does not state the distribution of these or give sufficient characterization to render them recognizable. Van Duzee, *Canad. Entomol.*, XVIII, 1886, p. 209, writes: "I find on comparison with a lot of perhaps one hundred fully developed examples from Kansas, that ours [from N. E. United States] are quite uniformly larger and more robust, with longer hairs on the pronotum." I have been able to confirm Van Duzee in these conclusions and believe that these northeastern forms should be referred to *Blissus leucopterus* var. *hirtus* Mont.

Blissus leucopterus var. *hirtus* Mont.

Blissus hirtus Mont. *Ann. Soc. Entomol. Belg.*, XXXVII, 405, 1893.

Described as a new species by Montandon, 1893, from a single specimen from Hazleton, Pa. This particular specimen is unusual in lacking the piceous spot at the apex of the corium, but the other characters are typical of the more robust eastern form which has longer, denser and more tawny villosity on the pronotum. The femoræ are also frequently castaneous. At most this can only be considered a variety particularly common to the highlands of northeastern United States and Canada, where it is found in both macropterous and brachypterous conditions.

Blissus leucopterus var. *arenarius* n. var. Longer and narrower than *B. leucopterus* Say, the abdomen being distinctly longer than head and thorax together. The antennæ have the first three segments and base of fourth ochraceous. The villosity of the pronotum is shorter, less dense and grayish. The hemielytra have the membranous areas more sordid white; the veins limiting the clavus and those of the posterior margin and other parts of the corium for the most part stramineous or faintly tinged with brown; the apical spot is not so strongly piceous, either stramineous, ferruginous or slightly embrowned. Legs ochraceous. Only macropterous forms known to me.

Described from one ♂ (type) and two ♀'s collected by Dr. F. E. Lutz, of the American Museum of Natural History at Sandy Hook, N. J., June 30, and July 29, 1910. These were collected on a species of sand grass growing back of the sand dunes along the beach. One ♂, Coney Island, N. Y., Sept. 23, 1891, collected by the late Dr. J. L. Zabriskie (A. M. N. H.). One ♀ collected by me the beach at Rockaway, Long Island, May 25, 1912 (my coll.).

Blissus leucopterus var. *insularis* n. var. Shorter and narrower than the typical *B. leucopterus* Say. The antennæ much the same in character and color but the terminal segment is relatively shorter. The pronotum deep velvety-black, anteriorly prominently silver-gray; the villosity shorter and sparser. Hemielytra appearing more whitish through the fact that the veins are not stramineous but concolorous with the whitish

membranous areas; commissural margin of the clavus, apical margin of corium median vein apically and apical spot strongly piceous. Femoræ frequently castaneous.

This variety, judging from my material, inhabits the costal strip of Florida and there always brachypterous as stated by Schwarz, Proc. Ent. Soc. Washington, Vol. I, 1888, p. 105, that he never, among thousands of specimens, saw a single macroppterous specimen. This variety also occurs in Porto Rico and doubtless other West Indian Islands, strange to say, in both the macropterous and brachypterous forms.

Described from 3 ♂'s and 1 ♀, Punta Gorda, Fla., Nov. 16, 1911, and numerous examples from San Juan, Porto Rico, Aug. 2, 1914, which I collected by pulling up a wild grass growing closely appressed to the ground (A. M. N. H.). Type: a male from Fla. in the A. M. N. H.

PROCEEDINGS OF THE BROOKLYN ENTOMOLOGICAL SOCIETY.

Meeting of January 17, 1917.—Long Island records: *Corymbites triundulatus*, recorded from Rockaway by Mr. Ballou.

Under the head of "A New Collecting Ground for Insects on Long Island" Mr. W. T. Davis recorded from Selden and vicinity, a queen of *Polyerges rufescens lucidus* Mayer; *Dolichoderus maria* Forel, an inhabitant of sandy areas; and *Atta septentrionalis* McCook, the fungus-growing ant, previously reported from Smithtown and Wading River (see BULL. BROOKLYN ENT. SOC., X, 81, October, 1915); *Cicindela rugifrons* Dej., the usual green form, a blue example and two dark olive; *C. purpurea*, *C. tranquebarica*, *C. punctulata*; and *C. generosa*. *Strategus antæus* Fab., the ox-beetle, was found in some numbers on August 30 and 31, most of them dead, on their backs with legs outspread; this species being previously reported from Wading River and Riverhead, L. I. *Aphilanthops frigidus* was seen carrying a winged female ant. *Formica fusca* var. *subsericea* Say; at night, by lantern light, the beetle *Carabus limbatus* was seen running on a wood path with a small oak-gall in its jaws. Twenty-nine species of Orthoptera were collected. An interesting botanical find was two clumps of *Juniperus communis* L. near Selden, an addition to the known flora of Long Island. Mr. G. P. Engelhardt in his third communication on his trip to the Pacific coast recorded the finding of an ant, determined by Prof. W. M. Wheeler as *Camponotus maculatus* Fabr. subsp. *vicinus* Mayer emitting a phosphorescent light ventrally. Only one specimen was taken in the night.